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**Indoor Air Benzene Concentration Found in Six Homes With
Known Gasoline Contamination of Drinking Water**

Prepared by:

**New Hampshire Division of Public Health Services
Environmental Health Risk Assessment Unit**

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Known Gasoline Contamination of Drinking Water**

Abstract

This study was designed as a pilot investigation to determine whether drinking water contaminated with the gasoline constituent benzene, could contribute to elevated benzene levels in the indoor air. The project focused specifically on the concentrations of benzene detected in the air of six residential homes during specific water usage situations. The indoor air samples were taken using Gilian personal sampling pumps. Samples were analyzed following EPA standard gas chromatography methods. The results indicate that in homes with high benzene water concentrations, indoor air concentrations of benzene are elevated slightly following the occurrence of a 15 minute shower.

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The Division of Public Health Services (DPHS) is responsible for making health based recommendations to homeowners who have contaminated water supplies. On the basis of these air sampling results, the DPHS made recommendations designed to minimize the homeowners exposure to benzene from inhalation.

APPENDIX F

Possible inhalation exposure from these compounds may be further minimized by considering the following precautions:

- a. Use alternative water supplies to the extent possible;
- b. Minimize the use of hot water, using warm rather than hot whenever possible (hot water causes compounds such as benzene to vaporize more readily);
- c. Ventilate any area in which hot water is being used;
- d. Use laundromat for washing clothes if possible. Otherwise closed off and ventilate the area between laundry room and living area during and after use;
- e. Avoid use of contaminated water for home humidifiers or vaporizers;
- f. You may wish to further minimize indoor air contamination, consider installation of a point-of-use water treatment system such as an activated charcoal filter. For more information regarding such systems contact the Water Supply and Pollution Control Division of the Department of Environmental Services at 271-3139.

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APPENDIX F

Recommendations for Water Usage Restrictions